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EXAMINER
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ART UNIT	PAPER NUMBER
3623	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/475,962	PENNISI, JR, FRANK JOSEPH
	Examiner	Art Unit	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/26/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The following is a Final Office action in response to communications received 01/26/06.

Claims 1, 17, 33, and 41 have been amended. Claims 1-48 are now pending in this application.

Examiner Note

2.   Claim 42 is listed with the status identifier "(currently amended)". Examiner notes that

no amendments have been made to the claim and there claim 42 should be listed as "(Original)".

Allowable Subject Matter

3.   Claims 6-8, 22-24, and 38-40 are objected to as being dependent upon a rejected base

claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   Claims 1, 16, 17, 32, 33, and 48 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hunt et al. (U.S. 5,835,716).

As per claim 1, Hunt et al. teaches a method of tracking and predicting the capacity

utilization of a goods delivery system, the system having at least one delivery agent and at least

one delivery zone comprising a geographic area comprising at least one zip group having at least

one zip code, each delivery agent having at least one delivery vehicle comprising a plurality of

delivery vehicle slots, each delivery vehicle slot defined as a portion of one of the delivery

vehicles used to deliver a good, the goods delivery system providing a respective first potential

delivery date for approval by a user, a respective order, and the number of slots the respective

order will fill, said method of tracking capacity utilization comprising the steps of:

defining a delivery agent capacity utilization matrix for each delivery agent for a specific

delivery zone, the delivery agent capacity utilization matrix comprises a number of delivery

vehicle slots that the delivery agent has for use in the delivery zone, including a number of

delivery vehicle slots for each zip group in the delivery zone, the total number of vehicle

delivery slots in the zone defining a zone delivery capacity of the delivery agent (See figure 3A,

column 2, line 55-column 3, line 16, column 6, lines 4-25, and column 7, lines 21-31, wherein

the amount of open capacity per geographic zone is defined for a delivery agent);

determining a respective zone maximum number of delivery vehicle slots and a

respective number of used delivery slots for a specified period of time within the respective

delivery zone, the zone maximum number of delivery slots defined by the sum of the zone

delivery capacity of each delivery agent in the delivery zone (See column 3, lines 24-44, column

6, lines 44-50, column 7, lines 33-50 and 63-67, column 9, lines 19-40 and 62-67, wherein the

maximum capacity of the carrier is stored in the system and wherein the available capacity is

with regards to the maximum capacity and the capacity accounted for. The system decrements

available capacity as the capacity is accounted for);

determining whether the respective order can be shipped on the first potential ship date

based on the number of available delivery vehicle slots, wherein said respective number of

available delivery vehicle slots is equal to said respective zone maximum number of delivery

vehicle slots minus said respective number of used delivery slots (See column 3, lines 24-44,

column 7, lines 35-55 and line 63-column 8, line 5, column 9, lines 19-40 and 62-67, wherein it

is determined if an order can be shipped on a selected date based on capacity availability);

returning a respective date that the respective order can be delivered based on the number

of available vehicle delivery slots on the respective date for approval by the user (See column 7,

lines 45-55, column 8, lines 1-5 and 20-32, column 9, lines 19-32, wherein the database is

queried and a date and rate table is displayed based on the results, wherein the date is approved

by the user); and

updating the respective delivery agent capacity utilization matrix for the above specified

period after the respective order has been included within said respective number of used vehicle

delivery slots (See column 9, lines 30-40 and 60-67, wherein the system updates the capacity of

the carrier when the delivery is included).

However, Hunt et al. does not expressly disclose a buyer.

Hunt et al. discloses a system where a carrier delivers a requested item, such as a product

to an end point with a specific address and a specific delivery date. Hunt et al. further discloses

that the technological advances and better methods of doing business have spurred greater

demand for carrier service. A buyer being the recipient of a delivered a product is old and well

known in business and sales, such as with catalog ordering and e-commerce. Therefore, it would

have been obvious to one of ordinary skill in the art at the time of the invention to allow a buyer

to be the user of the system of Hunt et al. in order to more efficiently deliver an ordered product

to a buyer, thus reducing costs and better adhering to a schedule. See column 1, lines 20-26 and

55-60, and column 2, lines 30-50.

As per claim 16, Hunt et al. teaches the method wherein said specified period of time is a preset number of days (See figure 3B and column 7, lines 45-55, which discusses entering a date range). However, Hunt et al. does not expressly disclose that the preset number of days in the range is thirty days.

Hunt et al. discloses a system where a carrier delivers a requested item, such as a product, based on a search of carrier capacity using a specified and preset date range. It would have been obvious to one of ordinary skill in the art at the time of the invention to set this preset number of days in the date range to thirty days in order to more efficiently match the delivery to available capcity by broadening the date and time values for the database search. See column 7, lines 45-55.

Claims 17 and 33 both recite equivalent limitations to claim 1 and are therefore rejected using the same art and rationale relied upon above.

Claims 32 and 48 both recite equivalent limitations to claim 16 and are therefore rejected using the same art and rationale relied upon above.

6.   Claims 2-5, 9-15, 18-21, 24-31, 34-37, and 41-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunt et al. (U.S. 5,835,716) in view of Mowery et al. (U.S. 5,983,198).

As per claim 2, Hunt et al. discloses wherein the plurality of delivery vehicle slots define a delivery capacity of the delivery agent and the step of updating the respective capacity utilization matrix (See figure 3A, column 2, line 55-column 3, line 16, column 6, lines 4-25, and column 7, lines 21-31, wherein the amount of open capacity per geographic zone is defined for a delivery agent. See column 9, lines 30-40 and 60-67, wherein the system updates the capacity of

the carrier when the delivery is included). However, Hunt et al. does not expressly discloses that

the step of updating the respective capacity utilization matrix further comprises the step of

calculating a workload utilization and storing the result in a workload value for each of said

respective slots with the delivery zone.

Mowery et al. discloses a plurality of delivery vehicle slots of a delivery agent and

calculating a workload utilization and storing the result in a workload value for each of said

respective slots with the delivery zone (See figure 5, column 3, lines 35-50, column 5, lines 30-

50, column 6, lines 1-13 and 20-36, column 7, lines 15-33, column 8, lines 40-46, and column 9,

lines 1-25, wherein the plurality of delivery slots to which deliveries can be made defines the

capacity needed on the delivery agent. The central system runs analysis on the data to calculate

the workload utilization of the plant and this value of workload and usage for a respective

delivery zone is stored at the central system).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and

utilities, to delivery points in geographic zones based on the ability of the carrier to take the

delivery to the delivery point. It would have been obvious to one of ordinary skill in the art at

the time of the invention to calculate workload utilization for the delivery slots in order to more

accurately determine the workload for delivery, thus reducing delivery costs. See column 1,

lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al. and column 5, lines 50-60 of

Mowery et al.

As per claim 3, Hunt et al. discloses calculating a capacity utilization matrix (See figure

3A, column 2, line 55-column 3, line 16, column 6, lines 4-25, and column 7, lines 21-31,

wherein the amount of open capacity per geographic zone is defined for a delivery agent).

However, Hunt et al. does not expressly discloses that the step of calculating the capacity

utilization comprises the step of calculating said respective workload value, wherein said

respective workload value = (last workload + (number of filled slots) / (zip group maximum)).

Mowery at al. teaches wherein the step of calculating the capacity utilization comprises

the step of calculating said respective workload value, wherein said respective workload value

analyzes the last workload and the number of filled slots of the delivery versus the zip group

maximum (See figure 5, column 3, lines 35-50, column 4, lines 12-45 and 56-61, column 5, lines

30-35, 47-50, and 60-65, column 6, lines 1-13 and 20-36, column 7, lines 15-33, and column 9,

lines 1-13, wherein the central system runs analysis on the data to calculate the workload

utilization of the plant. The capacity usage of a plant is analyzed to determine the workload of

the plant. An analysis is run by the central system to determine the patterns in a plant's

workload which looks at the last workloads of a previous period and the current amount put in

each tank in the current period (the fraction of each tank filled on the current delivery)).

However, Mowery et al. does not expressly disclose that the relationship of the workload value is

represented by the specific formula of workload value = (last workload + (number of filled slots)

/ (zip group maximum)).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and

utilities, to delivery points in geographic zones based on the ability of the carrier to take the

delivery to the delivery point. Mowery et al. presents an algorithm that is used to determine the

workload of a plant. Representing functional relationships in equation form is old and well

known in the art. It would have been obvious to one of ordinary skill in the art at the time of the

invention to calculate workload utilization for the delivery slots in order to more accurately

determine the workload for delivery, thus reducing delivery costs. See column 1, lines 20-26 and

55-60, and column 2, lines 30-50 of Hunt et al. and column 5, lines 50-60 of Mowery et al.

Further, it would have been obvious to one of ordinary skill in the art at the time of the invention

to represent this relationship in equation form in order to more accurately depict the functional

relationship in a way that is easier to comprehend and use by others.

As per claims 4-5, Hunt et al. discloses that capacity of a delivery agent is all accounted

for and that no shipping times are available. Hunt et al. further discloses generating a manifest

when a carrier is full as well as the system knowing when the carrier still has space to be filled

(See figures 3A-3C, column 3, lines 25-45, column 8, lines 1-5, column 9, lines 25-40 and 60-

67). However, Hunt et al. does not expressly disclose the step of setting a respective capacity

signal when an over capacity condition and an under capacity condition has been detected or

setting a respective over capacity flag after determining that the sum of a set of said preselected

workload values are greater than a predetermined over capacity value over a historical time

period.

Mowery et al. discloses setting a respective capacity signal when an over capacity

condition and an under capacity condition has been detected (See figures 4 and 5, column 3, lines

50-54, column 4, lines 1-3 and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column

9, lines 1-13, which discusses capacity signals when an over capacity or under capacity situation

has been detected. This is done for each customer).

Mowery et al. further teaches setting a respective over capacity flag after determining that

the sum of a set of said preselected workload values are greater than a predetermined over

capacity value over a historical time period (See column 2, lines 40-51, column 3, lines 50-55,

column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37,

column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for

a predetermined period of time. See figures 4 and 5, column 3, lines 50-54, column 4, lines 1-3

and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column 9, lines 1-13, which

discusses capacity signals (flags) when over capacity situations are detected in workload (usage)

historical data. Deliveries cannot be made when the set of workload values for each customer

are greater than an over capacity value).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and

utilities, to delivery points in geographic zones based on the ability of the carrier to take the

delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering

the used capacity of a carrier when determining to put a delivery on a specific carrier. Mowery

et al. specifically deals with analyzing historical data to determine delivery routes and loads in

the present and future. It would have been obvious to one of ordinary skill in the art at the time

of the invention to set capacity signals for an over capacity condition and an under capacity

condition in order to more efficiently reduce delivery costs by locating all available capacity of

carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

As per claim 9, Hunt et al. discloses that capacity of a delivery agent is all accounted for

and that no shipping times are available. Hunt et al. further discloses generating a manifest when

a carrier is full as well as the system knowing when the carrier still has space to be filled (See

figures 3A-3C, column 3, lines 25-45, column 8, lines 1-5, column 9, lines 25-40 and 60-67).

However, Hunt et al. does not expressly disclose predicting the probability of a future respective

used slot being full based on historical over capacity conditions.

Mowery et al. teaches the method further comprising the step of predicting the

probability of a future respective used slot being full based on historical over capacity conditions

(See figure 5, column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45,

column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and

column 9, lines 1-7, wherein the probability of future usage and slots (levels) being full is

determined using historical data, such as over capacity condition).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and

utilities, to delivery points in geographic zones based on the ability of the carrier to take the

delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering

the used capacity of a carrier when determining how to efficiently put a delivery on a specific

carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery

routes and loads in the present and future. It would have been obvious to one of ordinary skill in

the art at the time of the invention to consider historical capacity usage of the carriers to predict

future usage in order to more efficiently reduce delivery costs by locating all available capacity

of carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

As per claim 10, Hunt et al. does not expressly disclose and Mowery et al. discloses

wherein the step of predicting the probability of a future respective used slot being full further

comprises the steps of:

obtaining the workload values for a predetermined period of time (See figure 5, column

2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and

60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein

workload data is stored and obtained for a predetermined period of time); and

determining the probability that the next used time slot will meet an over capacity

condition using a distribution function (See figure 5, column 2, lines 53-67, column 5, lines 36-

55 and 60-65, and column 6, lines 1-13 and 18-37, wherein forecasting is done to determine the

probability that the next used slot will meet an over capacity condition. A distribution function

is used to look at the data);

wherein said over capacity condition is defined as the state when the workload value is

greater than or equal to 100 percent (See figure 5, wherein the over capacity condition is defined

as a workload value over 100 percent).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and

utilities, to delivery points in geographic zones based on the ability of the carrier to take the

delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering

the used capacity of a carrier when determining how to efficiently put a delivery on a specific

carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery

routes and loads in the present and future. It would have been obvious to one of ordinary skill in

the art at the time of the invention to consider historical capacity usage of the carriers to predict

future usage in order to more efficiently reduce delivery costs by locating all available capacity

of carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

As per claim 11, Hunt et al. does not expressly disclose and Mowery et al. discloses the

step of predicting whether the trend line of the capacity utilization is changing (See at least figure

5 and column 5, lines 35-55 and 60-55, and column 6, lines 18-36, which discuss predicting

whether the trend line of the capacity usage of a plant is changing looking at historical usage

data).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and utilities, to delivery points in geographic zones based on the ability of the carrier to take the delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering the used capacity of a carrier when determining how to efficiently put a delivery on a specific carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery routes and loads in the present and future. It would have been obvious to one of ordinary skill in the art at the time of the invention to consider historical capacity usage of the carriers to predict future usage in order to more efficiently reduce delivery costs by locating all available capacity of carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

As per claim 12, Hunt et al. does not expressly disclose and Mowery et al. discloses the method wherein the step of predicting future capacity utilization further comprises the step of determining that the trend line of the capacity utilization for a first fixed period of workload values and that the trend line indicates the usage is changing (See column 8, lines 30-40, which discuss looking at trends in the data through analysis, this analysis indicating an increase in the pattern of the historical data. See column 5, lines 35-55 and 60-55, and column 6, lines 1-10 and 18-36, which discuss predicting whether the trend line of the capacity usage of a plant is changing looking at historical usage data during a fixed time period). However, Mowery et al. does not expressly disclose that the usage is increasing when the slope of the regression line for the period is greater than zero within a predetermined confidence interval.

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and utilities, to delivery points in geographic zones based on the ability of the carrier to take the delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering

the used capacity of a carrier when determining how to efficiently put a delivery on a specific

carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery

routes and loads in the present and future. It would have been obvious to one of ordinary skill in

the art at the time of the invention to consider historical capacity usage of the carriers to predict

future usage in order to more efficiently reduce delivery costs by locating all available capacity

of carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

Further, Mowery et al. discusses using forecasting techniques to predict capacity

utilization by looking at trends in past usage data to identify increases, as stated in column 8,

lines 30-40. It is old and well known that a slope greater than zero indicates that a trend line is

increasing in value. It is also old and well known in statistics to use confidence intervals when

sampling populations of data. It would have been obvious to one of ordinary skill in the art at

the time of the invention to utilize these old and well-known techniques to analyze the utilization

trends in order to more accurately predict usage needs, thereby optimizing delivery schedules,

minimizing supplier costs, and meeting customer needs, as stated in column 2, lines 20-25 and

30-33, column 5, lines 51-59, and column 8, lines 24-40.

As per claim 13, Hunt et al. does not expressly disclose and Mowery et al. discloses

determining that the trend line of the capacity utilization for a first fixed period of workload

values and that the trend line indicates the usage is changing (See column 8, lines 30-40, which

discuss looking at trends in the data through analysis, this analysis indicating an decrease in the

pattern of the historical data. See column 5, lines 35-55 and 60-55, and column 6, lines 1-10 and

18-36, which discuss predicting whether the trend line of the capacity usage of a plant is

changing looking at historical usage data during a fixed time period). However, Mowery et al.

does not expressly disclose that the usage is decreasing when the slope of the regression line for the period is less than zero within a predetermined confidence interval.

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and utilities, to delivery points in geographic zones based on the ability of the carrier to take the delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering the used capacity of a carrier when determining how to efficiently put a delivery on a specific carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery routes and loads in the present and future. It would have been obvious to one of ordinary skill in the art at the time of the invention to consider historical capacity usage of the carriers to predict future usage in order to more efficiently reduce delivery costs by locating all available capacity of carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

Further, Mowery et al. discusses using forecasting techniques to predict capacity utilization by looking at trends in past usage data to determine a decrease, as stated in column 8, lines 30-40. It is old and well known that a slope less than zero indicates that a trend line is decreasing in value. It is also old and well known in statistics to use confidence intervals when sampling populations of data. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize these old and well-known techniques to analyze the utilization trends in order to more accurately predict usage needs, thereby optimizing delivery schedules, minimizing supplier costs, and meeting customer needs, as stated in column 2, lines 20-25 and 30-33, column 5, lines 51-59, and column 8, lines 24-40.

As per claims 14-15, Hunt et al. does not expressly disclose and Mowery et al. discloses the method wherein said first fixed period is seven days (See column 6, lines 1-10 and 19-25,

wherein the first fixed period is seven days). However, Mowery et al. does not expressly

disclose a confidence interval and that the confidence interval is about 95 percent.

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and

utilities, to delivery points in geographic zones based on the ability of the carrier to take the

delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering

the used capacity of a carrier when determining how to efficiently put a delivery on a specific

carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery

routes and loads in the present and future. It would have been obvious to one of ordinary skill in

the art at the time of the invention to consider historical capacity usage of the carriers to predict

future usage in order to more efficiently reduce delivery costs by locating all available capacity

of carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

Further, Mowery et al. discusses using forecasting techniques to predict capacity

utilization by looking at trends in past usage data. It is old and well known in statistics to use

confidence intervals when sampling graphed populations of data. Furthermore, using a

confidence interval of about 95 percent is a statistical standard. It would have been obvious to

one of ordinary skill in the art at the time of the invention to utilize confidence intervals when

analyzing the utilization trends in order to more accurately predict usage needs, thereby

optimizing delivery schedules and minimizing supplier costs, as stated in column 2, lines 20-25

and 30-33, and column 5, lines 51-59.

Claims 18-21, 25-31, 34-37, and 44-47 recite equivalent limitations to claims 2-5, 9-15,

2-5, and 12-15, respectively, and are therefore rejected using the same art and rationale relied

upon above.

As per claim 41, Hunt et al. teaches a method of predicting capacity utilization of a goods

delivery system, the system having at least one delivery zone comprising at least one zip group,

each zone having a capacity utilization matrix comprising a number of delivery vehicle slots that

a delivery agent has for use in the delivery zone, including a number of delivery vehicle slots for

each zip group in the delivery zone, the total number of vehicle delivery slots in the zone

defining a delivery capacity of the delivery agent (See figure 3A, column 2, line 55-column 3,

line 16, column 6, lines 4-25, and column 7, lines 21-31, wherein the amount of open capacity

per geographic zone is defined for a delivery agent. See column 3, lines 24-44, column 6, lines

44-50, column 7, lines 33-50 and 63-67, column 9, lines 19-40 and 60-67, wherein the maximum

capacity of the carrier is stored in the system and wherein the available capacity is with regards

to the maximum capacity and the capacity accounted for. The system decrements available

capacity as the capacity is accounted for). However, Hunt et al. does not expressly disclose each

delivery vehicle slot having an associated workload value or said method of predicting the

capacity utilization.

Mowery et al. discloses vehicle slots having associated workload values (See figure 5,

column 3, lines 35-50, column 5, lines 30-50, column 6, lines 1-13 and 20-36, column 7, lines

15-33, column 8, lines 40-46, and column 9, lines 1-25, wherein the plurality of delivery slots to

which deliveries can be made defines the capacity needed on the delivery agent. The central

system runs analysis on the data to calculate the workload utilization of the plant and this value

of workload and usage for a respective delivery zone is stored at the central system) and the

method of predicting the capacity utilization comprising the steps of:

predicting the probability of a future respective used delivery vehicle slot being full based on historical over capacity conditions (See figure 5, column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for a predetermined period of time, this historical data used to predict and forecast about each customer's future slot's usage and over capacity conditions);

predicting whether the trend line of the capacity utilization is changing (See column 8, lines 30-40, which discusses looking at a trend line to predict and forecast if the capacity usage is changing. See also figure 5 and column 2, lines 53-67, column 5, lines 36-55 and 60-65, and column 6, lines 1-13 and 18-37, wherein forecasting is done to determine the trend and identify changes).

Both Mowery et al. and Hunt et al. disclose delivering goods, such as products and utilities, to delivery points in geographic zones based on the ability of the carrier to take the delivery to the delivery point. Further, both Mowery et al. and Hunt et al. disclose considering the used capacity of a carrier when determining how to efficiently put a delivery on a specific carrier. Mowery et al. specifically deals with analyzing historical data to determine delivery routes and loads in the present and future. It would have been obvious to one of ordinary skill in the art at the time of the invention to calculate workload utilization for the delivery slots in order to more accurately determine the workload for delivery, thus reducing delivery costs. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al. and column 5, lines 50-60 of Mowery et al. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to consider historical capacity usage of the carriers to predict future

usage in order to more efficiently reduce delivery costs by locating all available capacity of

carriers. See column 1, lines 20-26 and 55-60, and column 2, lines 30-50 of Hunt et al.

Claims 42-43 recite equivalent limitations to claims 10-11, respectively, and are rejected

using the same art relied upon in the rejection of claims 10-11, respectively.

Response to Arguments

7.   Applicant's arguments with respect to the 35 USC § 102 and 35 USC § 103 rejections of

claims 1-48 based solely on Mowery et al. (U.S. 5,983,198) have been considered but are moot

in view of the new grounds of rejection, as necessitated by amendment. Examiner now relies on

Hunt et al. (U.S. 5,835,716) as the primary reference in the 35 USC § 102 and 35 USC § 103

rejections above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Mattioli, Jr., et al. (U.S. 6,286,009) discloses a carrier manager program.

Cureton et al. (U.S. 5,867,820) discloses delivering products using a management system, where the capacity of the delivery vehicles is considered.

Onozaki et al. (U.S. 6,026,378) teaches shipping management and considering the capacity of trucks when scheduling deliveries.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 12, 2006

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